AMERICAN DYESTUFF REPORTER

A Weekly Publication devoted to DYESTUFFS, COLORS and ALLIED CHEMICALS

"Circulated Everywhere Dyestuffs are Used"

RECEIVED APR 10 1918 LIBRARY OF THE BARRETT CO.

Vol. 2 New York, April 8, 1918 No. 10

Standard for Army Cloths

THE FOLLOWING SPECIFICATIONS OF ARMY CLOTHS WERE GIVEN OUT BY THE QUARTERMASTER'S DEPARTMENT THE EARLY PART OF THIS WEEK

The committee's report is as follows:

"Your board of inquiry into the subject of army cloths begs to report as follows and to submit the accompanying specifications. In arriving at our conclusions, we have been guided by the following considerations:

"First—Your decision to adopt the following fabric weights:

"Uniform cloth, 20 oz.

"Blankets, 4 lbs.

"Overcoating, 32 oz.

"Shirtings, 9½ oz.

"Second—So far as possible the available wool supply for the immediate future, both as to volume and grade, in its relation to army fabric needs.

"Third—Warmth and durability of fabrics.

"Fourth—The machinery of the country available for these fabrics.

"The specifications we have recommended will produce warmer and more durable fabrics than the present specifications.

"The goods will have more intrinsic value, fully sufficient to offset the increased cost.

"In considering the quality of wool specified in the four fabrics in connection with the large quantity of each required, it was our opinion that it was necessary to make the range of qualities as wide as practical, keeping fully in mind the instructions given to the committee.

"The shirting flannel and underwear will require wool 58s grade and finer.

"Twenty-ounce suiting, 46s to 56s.

"The blanket, also overcoating, 44s to 64s.

"The requirement for fine wool in the blankets and overcoatings in addition to improving the fabric will create an outlet for carbonizing wool out of the 200,000 bales Australian.

"We have recommended three specifications for the 20-ounce in order to untilize to the best advantage the available wool supply and machinery of the country.

"We have specified the use of shoddy in the blankets and overcoatings. Our experience as manufacturers warrants us in assuring you that the fabrics in which we have recommended the use of shoddy will be warm, strong and serviceable.

"We have established in the specifications strength tests which, adhered to, will insure the use of only the better grades of reworked wool."

The report is signed by the board of inquiry, as follows: Fred S. Clark, chairman; Stephen Metcalf, Jacob F. Brown, Charles H. Wilson, George H. Hodgson, Herbert E. Peabody, secretary; Major C. Nixon.

The specifications quoted by the board are the following:

Olive drab shirting flannel, 9½ oz.

Material—Single or 2-ply stock of

FOR FORTY-FIVE YEARS

LEADING distributors of Chemicals, Colors, Dyestuffs, Gums and Oils to the Textile Industry.

From time to time we are receiving dependable shipments, of ACID, BASIC, DIRECT, SULPHUR *and* "CIBA" FAST VAT DYES, and offer these in reasonable quantities.

Correspondence invited

A. KLIPSTEIN & COMPANY

644-652 GREENWICH STREET NEW YORK CITY

yarn dyed, olive drab, cotton warp and single worsted filling, olive drab mixture, ½-blood or finer. Whole contents of cotton not to exceed 40 per cent. of finished weight.

Color—To be a close match to standard sample.

Tests—The following are the tests which will be applied in the inspection:

1. Washing test: Boil for 10 minutes in a solution containing 80 grains of oleine soap (army issue) to pint of water.

2. Laundry test—Boil for 10 minutes in a solution containing 10 grains of dry carbonate of soda to one pint of water.

3. Exposure test — Expose to the weather for 30 days.

In any tests no greater change must take place than would be shown under similar test made at the same time on the sealed standard sample.

Width—To be not less than 54 inches, nor more than 56 inches wide, independent of selvage.

Weight—To weigh not less than 9½, nor more than 10½ ounces, to the linear yard.

Weave—To be a 4 harness twill, 2 up and 2 down.

Threads—To have not less than 64 threads per inch in warp and 64 threads per inch in filling finished.

Finish—To have the same degree and character of finish as shown by the standard sample thoroughly clean, free from crocking, nap slightly raised, slightly shorn and well pressed.

Strength — To sustain a tensile strength of not less than 50 pounds to the inch in the warp, and 35 pounds to the inch in the filling.

Twenty-ounce olive drab suiting (all worsted).

Material—Warp to be a 2-ply worsted, not lower in grade than 46s, or domestic quarter-blood, stock, top, slub or yarn, dyed. Filling to be single or 2-ply worsted, not lower in grade than 50 to 56s, or domestic ⅜-blood, olive drab mixture.

Color—To be a close match to sealed standard color.

Tests—The following are the tests which will be applied in the inspection:

1. Washing test—Boil for 10 minutes in a solution containing 80 grains of oleine soap (army issue) to one pint of water.

2. Laundry test—Boil for 10 minutes in a solution containing 10 grains of dry carbonate of soda to one pint of water.

3. Exposure test—Expose to weather for 30 days. In any tests no greater change must take place than would be shown under similar test made at the same time on the sealed standard sample.

Width—To be not less than 56, nor more than 58 inches wide, independent of selvage.

Weight—To weigh not less than 19½, nor more than 20½ ounces.

Selvage—To have no dividing threads and to be of same material and color as warp.

Weave—Four harness twill, two up and two down preferred, but other weaves will be considered provided fabric is sufficiently close, firm and compact.

Threads—To have not less than 56 threads to the inch, finished in the warp,

YOU can't afford to use any but the finest Oil Soluble Colors

We Manufacture the Finest

OIL ORANGE
OIL RED
OIL BROWN
OIL YELLOW
OIL BLUE
OIL MAHOGANY

We Can Match Special Colors

SIZING SPECIALTIES CO.
INCORPORATED
JERSEY CITY NEW JERSEY

and 52 picks to the inch, finished in the filling.

Strength — To sustain a tensile strength of not less than 100 pounds to the inch in the warp and not less than 85 pounds to the inch in the filling.

Finish—To have the same degree and character of finish as shown by the sealed standard sample, thoroughly clean.

Twenty-ounce O. D. suiting, worsted warp, wool filling.

Material—Warp is to be 2-ply worsted, not lower in grade than 46s, or domestic quarter-blood, stock, top, slub or yarn dyed, olive drab or olive drab mixture. The stock mixture of filling to be 70 per cent. of wool not lower in grade than 56s and 30 per cent. of noils and garnet, not lower than 50s, to be olive drab mixture.

Color—To be a close match to the sealed standard sample.

Tests—The following are the tests which will be applied in the inspection:

1. Washing test—Boil for 10 minutes in a solution containing 80 grains of dry carbonate of soda to one pint of water.

2. Laundry test—Boil for 10 minutes in solution containing 10 grains of dry carbonate of soda to one pint of water.

3. Exposure test—Expose to weather for 30 days. In any tests no greater change must take place than would be shown under similar test made at the same time on the sealed standard sample.

Width—To be not less than 56, nor more than 58 inches wide, independent of selvage.

Weight—To weigh not less than 19½, nor more than 20½ ounces to the linear yard.

Selvage to have no dividing threads and to be of same material and color as warp.

Weave—Four harness twill, two up and two down preferred, but other weaves will be considered provided fabric is sufficiently close, firm and compact.

Threads—To have not less than 50 threads to the inch finished in the warp and 48 picks to the inch finished in the filling.

Strength — To sustain a tensile strength of not less than 75 pounds to the inch in the warp finished and not less than 60 pounds to the inch in the filling finished.

Finish—To have the same degree and character of finish as shown by the sealed standard sample, thoroughly clean.

Twenty-ounce O. D. suiting—all wool.

Material—To be woolen yarn not lower than 50s grade, or domestic high one-quarter blood, olive drab mixture. The admixture of reworked wools is prohibited. The use of noils, broken sliver, from cards, mules and spinning frames and of carded or garnetted thread waste made from the mixture of this fabric to an amount of not more than 20 per cent. of the weight is permitted.

Color—To be a close match to sealed standard sample.

Tests—The following are the tests which will be applied in the inspection:

1. Washing test—Boil for 10 minutes

DICKS, DAVID COMPANY, Inc.
302 BROADWAY NEW YORK
Manufacturers of
FUCHSINE SOLUBLE BLUE METHYL VIOLET
METHYLENE BLUE SAFRANINE
as well as other ANILINE COLORS
Works: Waverly, New Jersey; Chicago Heights, Ill.
Distributors for: Essex Aniline Works; Reliance Aniline Chemical Co.
Offices: Chicago, Boston, Paterson, Greensboro

in a solution containg 80 grains of oleine soap (army issue) to one pint of water.

2. Laundry test—Boil for 10 minutes in a solution containing 10 grains of dry carbonate of soda to one pint of water.

3. Exposure test—Expose to weather for 30 days. In any tests no greater change must take place than would be shown under similar test made at the same time on the sealed standard sample.

Width—To be not less than 56, nor more than 58 inches wide, independent of selvage.

Weight—To weigh not less than 19½, nor more than 20½ ounces.

Selvage to have no dividing threads and to be of same material and color as warp.

Weave—To be a four harness straight twill to the right, two up and two down.

Threads—To have not less than 47 threads to the inch finished in the warp, and 45 picks to the inch in the filling.

Strength — To sustain a tensile strength of not less than 50 pounds to the inch in the warp and not less than 45 pounds to the inch in the filling.

Finish—To have the same degree and character of finish as shown by the sealed standard sample, thoroughly clean.

Thirty-two-ounce olive drab overcoating.

Material—To be woolen yarn, composed of 55 per cent. wool, grade 44s or finer, 10 per cent. wool, grade 58s or finer, 35 per cent. reworked wool or noils.

Maximum allowable percentage of residue on boilout, 2½ per cent.

Broken sliver from cards and mules made from the mixtures of this fabric not exceeding 10 per cent. may be added to the blend.

Color—To be an olive drab mixture and a close match to sealed standard sample.

Tests—The following are the tests which will be applied in the inspection:

1. Washing test—Boil for 10 minutes in a solution containing 80 grains of oleine soap (army issue) to one pint of water.

2. Laundry test—Boil for 10 minutes in solution containing 10 grains of dry carbonate of soda to one pint of water.

3. Exposure test—Expose to weather for 30 days. In any test no greater change must take place than would be shown under similar test made at the same time on the sealed standard sample.

Width—To be not less than 56, nor more than 58 inches wide, independent of selvage.

Weight—To weigh not less than 32 ounces nor more than 34 ounces to the linear yard.

Selvage—To have no dividing threads and to be of same material and color as warp.

Weave—To be a six harness broken twill, two up and three down.

Threads—To have not less than 36 threads to the inch finished in the warp and 36 picks to the inch finished in the filling.

Strength — To sustain a tensile strength of not less than 80 pounds to

Manufactured by
The Butterworth Judson Corp.
WORKS
Newark, N. J. Baltimore, Md.
Boston, Mass.

VICTORIA BLUE B
VICTORIA BLUE BASE
CRYSTAL VIOLET
CHROME BROWN

Phosgene Gas Michlers Ketone
Dinitrobenzol Benzyl Chloride
Picramic Acid Salicylic Acid
Benzidin Sulphate and Base, Etc.

Manufactured by
THE ATLAS POWDER CO.
NITRITE OF SODA

Sole Distributors
Frank Hemingway, Inc.
115 Broadway, New York

LAKE COLORS ANILINE COLORS
PHARMACEUTICALS
OILS AND GREASES
ACIDS

the inch in the warp and not less than 65 pounds to the inch in the filling.

Finish—To have the same degree and character of finish as shown by the sealed standard sample, thoroughly clean.

Four-pound olive drab blanket.

Material 55 per cent. wool grade 44s or finer, 10 per cent. wool grade 60s or finer, 35 per cent. reworked wool or noils.

Maximum allowable percentage of residue of boilout, 2½ per cent.

Broken sliver from cards and mules made from the mixture of this fabric not exceeding 10 per cent. may be added to the blend.

Color—Olive drab mixture to be a good match to standard sample.

Tests:

1. Washing test—Boil for 10 minutes in solution containing 80 grains of oleine soap (army issue) to one pint of water.

2. Laundry test—Boil for 10 minutes in solution containing 10 grains of dry carbonate of soda to one pint of water.

3. Exposure test—Expose to the weather for 30 days.

Size—To be not less than 7 feet, nor more than 7 feet 3 inches long and not less than 5 feet 6 inches, nor more than 5 feet 9 inches wide.

Weight—To weigh not less than 4 pounds, and not more than 4 pounds 8 ounces. Blankets weighing less than 4 pounds shall be rejected unless when subjected to a condition or dry fiber test the weight thus found, with 11 per cent. added (for normal regain of moisture allowable), will bring the weight up to or over 4 pounds.

Weave—To be a four harness twill, two up and two down.

Threads—To have not less than 27 threads to the inch in the warp and not less than 30 threads in the filling in the finished cloth.

Strength — To sustain a tensile strength of not less than 55 pounds to the inch in the warp and not less than 50 pounds to the inch in the filling.

Border—Not required.

Finish—To have the same degree and character of finish as shown by accepted new standard. Thoroughly clean and well filled. The ends to be secured from raveling by an overlock stitch, the thread employed to conform in shade to the blanket.

Stamping—All blankets to be stamped "U. S." at mill. The Government will furnish the stamp and formula.

Label—In one corner there should be neatly stitched a piece of label cloth on which shall be printed the name of the contractor, date of contract and name of depot, together with specification number, leaving a blank space at bottom for the name of the inspector.

Notice to Subscribers

Owing to the disturbance caused by war conditions in the postal service, we cannot guarantee prompt delivery of this journal through the mails. For delays in such delivery, while they should be reported at once to this office, we cannot accept blame.

The name of the Midland Chemical Company, Dubuque, Iowa, has been changed to the Midland Chemical Laboratories, Inc., with a capital stock of $200,000.

ATLAS COLOR WORKS
INC.
BROOKLYN, N. Y.

Manufacturers of

Indigotine
Indigo Paste
Indigo Extract
Alizarine Yellow 3G
Malachite Green

We do not job in any colors, we manufacture

SALES OFFICE:
322 Ninth Street, Brooklyn, N. Y.

WORKS:
Hamilton Ave. and Gowanus Canal
Brooklyn, N. Y.

What the Consumer Thinks

The Mianus Mfg. Co., Coscob, Conn.:
"American industries should be protected to cover differences in cost between here and abroad."

Broad Brook Co., Broad Brook, Conn.:
"Tariff should be enough to enable domestic manufacturers to build up their business on a permanent basis."

Patrick Duluth Woolen Mill, Duluth, Minn.:
"Sufficient protection to encourage the manufacturer."

Lauderdale Cotton Mills, Meridian, Miss.:
"We are of the opinion that we have a sufficient protective tariff on dyes and I think after a few years this tariff should be gradually reduced or entirely eliminated. The dye manufacturers of this country are now getting enormous prices for their products and should be able to build up their plants, also ample reserve capital so as to enable them to compete with the entire world."

Woodcock Woolen Mills, Waterside, Pa.:
"A high protective tariff on American made dyes."

Bennet & Aspden Co., Manayunk, Phila., Pa.:
"Sufficient protection to foster home industries."

Bredford Durfee Textile School, Fall River, Mass.:
"Ad valorem — sufficient to make American-made dyes possible."

Newton Paper Co., Holyoke, Mass.:
"I think the war has taught us to know that we Americans should make our own dyes hereafter."

Chatham Mfg. Co., Elkin, N. C.:
"Sufficient tariff to protect and foster American dye manufacturers."

Amos Abbott & Co., Dexter, Me.:
"Enough to keep the industry flourishing in this country."

The Davies Hosiery Co., Reading, Pa.:
"We should have a fair protective tariff—nothing more."

Geo. W. Watt Woolen Co., Norristown, Pa.:
"Sufficient to develop and maintain this industry."

Cyril Johnson Woolen Co., Stafford Springs, Conn.:
"Protection enough to enable the American industry to maintain itself against German competition."

Eastern Mfg. Co., South Brewer, Me.:
"Protective tariff should be advocated."

Locke Cotton Mills Co., Concord, N. C.:
"A high tariff."

Gibson Mfg. Co., Concord, N. C.:
"Just enough tariff to protect the American laborer."

Falls Co., Norwich, Conn.:
"Give them ample protection."

Hygienic Blanket Mills, Hubbardston, Mass.:
"Only sufficient tariff to meet foreign competition."

Belle-Vue Mfg. Co., Hillsboro, N. C.:
"Just enough to allow us to make all our own colors."

S. Austin Bicking Paper Mfg. Co., E. Downingtown, Pa.:
"We believe a protective tariff should be stiff enough to encourage American-made dyes."

(*Continued on page* 13)

United Chemical Products Corporation
Importers, Exporters and Manufacturers
YORK AND COLGATE STREETS, JERSEY CITY, N. J.
CHROME AND SULPHUR COLORS
ACID COLORS
BASIC COLORS
DIRECT COLORS
SUMAC EXTRACT
LOGWOOD-HEMATINE
GAMBIER-FUSTIC
CHROMONAL FAST KHAKI
CHROMONAL FAST GREEN
Fast to Light, Fulling and Milling
Soluble Oils, Textile Soaps, Gums, etc., for Weighting, Softening, Finishing and Waterproofing all Fabrics
WRITE FOR SAMPLES AND QUOTATIONS

AMERICAN DYESTUFF REPORTER
Published weekly by
HEWITT PUBLISHING CORPORATION
470 Fourth Ave., New York

Pointed solely toward the welfare and growth of the American Dyestuff Industry. Unbiased contributions appreciated.

MYRON DREW REESER, Managing Editor

Domestic Subscription, $3 per year. Foreign, $4.
Advertising rates on request.

The Textile Exhibition

Big Event to be Held at Grand Central Palace, April 29th to May 11th. Dyestuff Industry Well Represented.

THE Sixth National Exhibition of the Textile Exhibitors' Association will be held in the Grand Central Palace, New York, beginning Monday, April 29th, and continuing until Saturday, May 11th, inclusive. This will be the first exhibition of its kind to be held in New York City, and from present indications will be the largest ever held anywhere in the world. It will include exhibitors of textile machinery, finished textiles and all industries closely allied to the production of textiles—in this latter classification, of course, the American dyestuff industry is included.

It is confidently expected that this event will bring to New York the largest gathering of textile men which has ever congregated for an affair of this character. Several large textile associations are arranging conventions to be held in New York during the period covered by the Exhibition—among them may be mentioned the National Association of Cotton Manufacturers and the American Cotton Manufacturers' Association, who will meet in joint sessions on May 1st, 2nd and 3rd. The National Wool Fiber Association, and a number of organizations connected with the silk, woolen and allied trades, will also meet in New York while the Exhibition is on.

Many foreign nations as well as the United States Government are making official exhibits of the textile products of their respective nations and advices to the promoters of the Exhibition indicate that a very large number of buyers and textile experts from foreign countries will be in attendance. The Textile Exhibitors' Association is composed of many of the country's most prominent makers of mill machinery. The purpose of the National Exhibit is educational; it affords an opportunity for these manufacturers to show the trade the last word in textile machinery. Naturally they prefer an occasion when they can meet the trade in one central place.

The Exhibition will be of particular interest to persons concerned with the production and use of dyestuffs because of the exhibits to be shown by several of the leading dyestuff manufacturers of the country, prominent among whom may be mentioned the National Aniline & Chemical Company, the DuPont American Industries, Marden, Orth & Hastings Corporation and Frank Hemingway, Incorporated. The National Aniline & Chemical Company in particular is preparing an exhibit which will show not alone samples of the various dyestuffs produced by this concern but many samples of finished textiles dyed with their colors and also the actual process of dyeing in operation. The National Company is devoting a great deal of thought and money to this exhibit and it is believed that their booth will be one which it will pay every one interested in the dyestuff industry to visit.

The DuPont Company has reserved a very extensive space but we understand that their exhibit will not go into such detail as some of the others because of the fact that they are not as yet quite ready to show a full line of colors. They will, however, be prepared to discuss dyestuff questions with those interested and to indicate the directions in which their dyestuff-producing efforts will be centered during the coming year.

All in all, we believe that the showings of machinery, equipment and finished textiles will be very well worth examination by all who are concerned in the production of textile products, and we earnestly suggest that all of our readers who find it possible to be in New York at this time make it a point to be in attendance.

The AMERICAN DYESTUFF REPORTER will have a booth at the Exhibition, where we will be very glad to welcome our readers and to extend all possible courtesies.

A special Exhibition Number of the REPORTER will be issued on Monday, April 29th. One of the chief features of this issue will be a complete history of the development of the American dyestuff industry compiled from all available sources and accompanied by numerous illustrations. As a supplement to this history, it is our intention to mention briefly the principal firms which have taken up the manufacture of dyestuffs in this country.

To facilitate our preparation of this special issue we should be glad to receive from any firms who are manufacturing aniline or natural dyestuffs information as to the exact nature of the colors which they are prepared to deliver to the trade, together with the dates when they began manufacturing and any other data which might be of interest to our readers.

New Dyes

The past week has seen the development of another Fuchsine which appears to meet all requirements. The crystals are as large as grains of wheat, well formed and of perfect solubility. The product contains no matter which separates from the dyebath or discolors the shade. The brilliancy is equal to the best Germany ever made and we only hope the manufacturer will be able to fill the orders. There was one a few months ago which seemed to be the last word, but which apparently was only a laboratory product, and deliveries were quite inferior. This latest Fuchsine is made by a more reputable firm and we hope to see a large business develop.

At the same time as the Fuchsine just mentioned we note a new Malachite Green from another factory. This green has all the qualities which are demanded. The solubility is perfect, the shade clear and brilliant and the tinctorial power somewhat above the

American Dyewood Co.

. . . Manufacturers of . . .

Dyewood Extracts

Chipped *and* Ground Dyewoods

Importers of

Aniline Colors *and* Indigo

NEW YORK PHILADELPHIA BOSTON HAMILTON, ONT

Works: CHESTER, PA.

average. We are pleased to see the progress that the makers of these colors are making. The early attempts in both dyes were not exactly satisfactory and the consumers hesitated to risk spotting their goods by the use of them. This danger is now past and the only other step necessary is to increase the output to a point where the entire demand can be satisfied.

Coal-Tar Dyes and Chemicals

An unsettled condition prevailed in the coal-tar dye market this week owing perhaps to imports being denied after April 15. The export demand has been rather good while the domestic demand has remained rather quiet, most activities centering around the toluol derivatives. The demand for Aniline colors still remains about the same with the exception of the demand of the textile trades for late spring and summer offerings. The prices of dye bases and dyewoods remain firm despite the comparatively small demand for many of the items. The scarcity of ocean tonnage is perhaps a factor in holding this market steady.

Perhaps the most promising feature of the chemical market this week was the placing of heavy contracts for deliveries of caustic soda and soda ash at a price below the current quotation. It is noted that the import restrictions do not affect this market as greatly as might be supposed since a number of the products are of domestic production. There were few changes in prices during the last week and the general tone of the market is rather steady.

Mode Shades Sulphur Colors

Dr. Louis J. Matos, Textile Chemist, National Aniline & Chemical Co., Inc.

The application of Sulphur colors to cotton in various stages of manufacture has been familiar in the majority of cotton dyehouses. Since the outbreak of the war there has been a constantly increasing demand for shades which are useful not alone for current fashions but particularly for military and sportsmen's goods. The sulphur colors lend themselves most advantageously for this class of work. The base shades are browns, varying from the extremes of yellow through the various khaki tones, olive drab, current brown shades to the extreme heavy chocolate tones. By the aid of these several groups the dyer is enabled to produce at will an extensive range of colors meeting every commercial requirement.

The dyeing of Sulphur colors has been greatly extended to mills that formerly did not do this class of work, and in consequence a number of complaints arise from dyers not fully familiar with the application of these dyes regarding uneven results and defective tones. In the majority of instances it was found that lack of experience was wholly responsible for the results obtained and in almost every instance the trouble was due to the fact that the dye vessels employed were equipped with the usual copper pipes and brass fittings, it being a well known fact that copper in any form and brass, or even bronze, is destructibly detrimental to the Sulphur dye. Iron alone should be

DIRECT BROWN G B
DIRECT BLUE B B
DIRECT GREEN B
CONGO RED
ZOBEL
Manufactured by
ZOBEL COLOR WORKS
SALES OFFICE: 38 Water St., New York FACTORY: Brooklyn, N.Y.

used and if possible, particularly for piece goods, the jigs or pans should be constructed of this metal. Wood is not objectionable, but it has a disadvantage of occasionally cracking and causing some of the dye solution of one kind to soak into the wood which afterwards cannot be well washed out before the kettle can be used for other shades.

Cotton piece goods are dyed after a preliminary treatment having for its object the removal of size or other dressing that the fabric may contain. Sometimes this preliminary treatment has not been carried out as effectively as desired, in consequence of the traces of dressing remaining in the cloth which causes a more or less imperfect dyeing of the fabric. Shaded areas are noticed in the finished goods, sometimes heavier in tone than the majority colors of the entire fabric, at other times these areas are lighter producing a distinctly mottled aspect. It, therefore, becomes necessary that the preparatory treatment of the cloth should be given sufficient time to insure the complete removal of all sizes and dressings, and at the same time completed with a thorouh wash to remove the desizing agents.

Malting is most desirable to produce a fabric clean and free from all starch residues, but here again this process cannot be hurried, sufficient time must elapse at a uniform temperature so that every particle of starch may be rendered completely soluble. All heavy coarse goods to be dyed khaki and other current shades can be successfully prepared by being wetted-out with a good quality of soluble oil. This product has a property of dissolving completely at a moderate temperature all the natural oils and waxes common to cotton goods; and, although it has no solvent action upon the starch or the dressing it loosens it to such an extent that any traces remaining have no influence upon the shade as dyed.

The following Sulphur colors have been found well suited for the production of shades under consideration:

Sulphur Yellow M T
Sulphur Brown S A P
Khaki No. 01672
Khaki C C.

These colors produce a good full shade with 8% when dyed in the usual manner at the boil with

12% Sodium Sulphide Crystals
30% Common Salt
15% Soda Ash.

When dyed in the jig the desire is to produce the proper depth of shade with the correct penetration in the fewest number of runs. This does not necessarily mean that the work is to be hurried since all Sulphur colors do not penetrate the cloth at the same rate, and consequently where two or more colors are used in combination the rate of dyeing has to be governed by the rate at which the slowest dyeing dye in the mixture comes on to the cotton. As a rule six to eight "ends" are sufficient but sometimes circumstances are such that two additional "ends" are necessary for proper fullness.

Of the three Sulphur Yellows the yellowest in tone is Sulphur Yellow B W which may be used for shading.

Sulphur Brown T D and Sulphur Brown G W have a decided red tone and are useful as shading colors.

United States Conditioning & Testing Co.

NEW YORK 340 Hudson St.
PHILADELPHIA 205 Chestnut St.
PATERSON 220 Ellison St.

General Textile Testing

Dyestuff and Color Tests

Microscopic examinations Photomicrographs

Khaki A A, Khaki B M, and Khaki No. 01603 are of the olive drab type and should be found useful for many purposes, but particularly as self colors.

Two useful combinations are made as follows:

One, a yellowish tone of brown, is produced with

1½% Sulphur Yellow M T
1½% Sulphur Brown S A P

dyed with

7% Sodium Sulphide Crystals
20% Common Salt
5% Soda Ash.

The other shade is of a distinctly greenish tone and is produced with

1½% Sulphur Green S A P
4 % Sulphur Yellow B

dyed with

12% Sodium Sulphide Crystals
30% Common Salt
5% Soda Ash.

The Sulphur Green S A P mentioned in the preceding formula is a very desirable shading color possessing a peculiar soft greenish tone which will lend itself desirably as a shading color, while as a self color the shade produced should find considerable usefulness for corduroy used for decorative and other similar purposes.

Sometime in dyeing Sulphur colors upon cotton piece goods the shade obtained is heavier than the sample being matched, and many dyers who have had experience in the application of these colors have not been successful in reducing the depth of shade obtained.

The Sulphur colors have a peculiar property of being particularly fast to the influence of usual chemicals found in dyehouses, and where the shade obtained has been too heavy its proper uniform reduction is not easy. As a suggestion, when this accident occurs the dyer should prepare a bath of Sodium Sulphide alone and pass the goods at a uniform rate of speed through it at a temperature of about 160°. This usually dissolves a sufficient amount of color thereby reducing the shade below that of the sample and enables the dyer to commence again and feed on color in a fresh bath and cautiously reach the desired end.

Like all cotton dyeing, the one point to constantly keep in mind is to take swatches at regular intervals and stop feeding the dye end of the bath at the right moment. Of course, after a definite formula has been established the usual oversight of the second hand of the dyehouse is quite sufficient to warrant a regular output of uniform tone.

The colors above referred to are well illustrated in one of the folders published by the National Aniline & Chemical Company, Inc., which shows sixteen dyeings that will appeal at once to practical cotton dyers. Copies of this folder may be obtained upon request made to any of the branches of the company.

Statement of the Ownership, Management, Circulation, etc., Required by the Act of Congress of August 24, 1912, of American Dyestuff Reporter, published weekly at New York, N. Y., for April 1, 1918.—State of New York, County of New York, ss. Before me, a notary public in and for the State and county aforesaid, personally appeared Dexter W. Hewitt, who, having been duly sworn according to law, deposes and says that he is the business manager of the American Dyestuff Reporter and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 443, Postal Laws and Regulations, printed on the reverse of this form, to wit: 1. That the names and addresses of the publisher, editor, managing editor, and business managers are: Name of Publisher, Hewitt Publishing Corporation; Post office address, 470 Fourth Avenue, New York, N. Y.; Editor, none; Managing Editor, Myron D. Reeser, 470 Fourth Avenue, New York, N. Y.; Business Managers, Dexter W. Hewitt, 470 Fourth Avenue, New York, N. Y.; A. P. Howes, 470 Fourth Avenue, New York, N. Y. 2. That the owners are: (Give names and addresses of individual owners, or, if a corporation, give its name and the names and addresses of stockholders owning or holding 1 per cent or more of the total amount of stock.) Hewitt Publishing Corporation, 470 Fourth Avenue, New York, N. Y.; Dexter W. Hewitt, 470 Fourth Avenue, New York, N. Y.; Elisha Hewitt, 470 Fourth Avenue, New York, N. Y.; A. P. Howes, 470 Fourth Avenue, New York, N. Y. 3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.) None. 4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him. (Signature of business manager) Dexter W. Hewitt. Sworn to and subscribed before me this 28th day of March, 1918. E. De Haven. (My commission expires March 30, 1919.)

Conference on Dye Standardization

At a private conference on March 28, at the Waldorf Astoria Hotel, of representative factors from all branches of the women's apparel industry, plans were perfected for an official meeting to take place this week to be attended by the important interests of the cloak, suit, dress, waists, shoes, millinery, hosiery and glove trades for the purpose of discussing color stabilization and co-ordination of the industries named. It was also stated that the plan under consideration has also something to do with aiding the Commercial Economy Board of the Council of National Defense in its campaign for conservation of raw material. The color standardization plan is said to be favored by the millinery trade factors. Color experts are to be consulted, at the conference scheduled for this week, and complete details will be outlined by the men who have introduced this idea.

A full report of this meeting will appear in the following issue of THE REPORTER.

What the Consumer Thinks

(*Continued from page 7*)

Aetna Hosiery Co., Worcester, Mass.:
"Good protection."

Crawshaw Carpet Co., Newburgh, N.Y.:
"Enough to equalize costs but not enough to eliminate dyes not made in America."

The Warrenton Woolen Co., Torrington, Conn.:
"Sufficient to adequately protect the domestic manufacturer."

Henry R. Miller Co., Reading, Pa.:
"American manufacturers should be protected all that's possible."

Oakland Mills, Taunton, Mass.:
"Tariff enough to establish paying business here."

Art Silk Dyeing, Paterson, N. J.:
"No protective tariff as the foreign dyestuffs are far superior at present although some of our domestic dyes compare favorably with foreign makes."

Redfern Lace Works, Somerville, N. J.:
"As high a tariff as can be obtained."

(*Continued in next issue*)

DYESTUFFS

AND

CHEMICALS

H. A. METZ & CO., Inc.

122 HUDSON STREET NEW YORK

Ascertaining the Indigotine Contents of Natural Indigo

Indigotine can be estimated as follows: 1 grm. of well-dried indigo is mixed (in a bottle with a ground stopper) with 10 grms. of garnets or glass beads and 20 c.c. of sulphuric acid mixture (composed of 3 parts of concentrated sulphuric acid and 1 part of oleum containing 20 per cent. of free SO). The mass is thoroughly mixed and is afterwards shaken occasionally over a period of 12 hours or so, until solution is complete, the whole being then poured carefully into cold water and the bottle thoroughly rinsed out. The aqueous solution is boiled for ten minutes and filtered, the filter being washed with hot water until the washings become colorless, and the filtrate then made up to a litre. Fifty cubic centimeters of this solution are mixed with 900 c.c. of distilled water, and the liquid titrated with 0.05 per cent. potassium permanganate solution until the blue color becomes golden yellow without green reflection. In order to accustom the eye to this end-point, which is not sharp, it is advisable to make a comparative test with pure indigo of known strength: 1 c.c. of the permanganate solution corresponds with about 0.00125 grm. of indigotine. In order to prepare pure 100 per cent indigo for purposes of comparison, 10 grm. of pure, powdered artificial indigo (98 per cent) marked B. A. S. F. or M. L. B. I.) are treated in a beaker with 120 grms. of caustic soda solution (sp. gr. 1.21), 330 grms. of concentrated sodium hydrosulphite solution and 100 grms. of water (or, if 50 grms. of 20 per cent, indigo paste are taken, only 60 grms. of water are added) the mixture being heated on a water-bath at 40° to 50° with occasional shaking and the air being gradually expelled from the beaker by means of a current of coal-gas. When solution is complete, the liquid is rapidly filtered and a current of air passed into the yellow or greenish filtrate. The precipitated indigo is collected on a hardened filter and washed first with hot water, then with hot dilute hydrochloric acid (30 c.c. of the concentrated acid diluted to a litre), next with water again, and repeatedly with alcohol and with alcohol and ether. When dried at 101° to 110° until of constant weight, the product represents pure 100 per cent indigo.

CLEARING HOUSE
FOR
COLORS

DYE EXCHANGE CORPORATION
141 BROADWAY NEW YORK

New Process for Printing Fabrics

G. Prifolel, of Linwood, Penn., assignor to the Congoleum Co. of Philadelphia (Am. Pat. 1,255,049, of Jan. 29, 1918) describes a new method for printing designs with coal-tar colors upon carpets, tapestries, and the like, aiming at introducing the color as deeply as possible into the body of the fabric.

The process consists essentially in printing the fabric with a composition consisting of an aniline color and a starchy vehicle, subjecting the fabric to the action of moisture and heat to cause the aniline colors to penetrate the fabric, then drying the fabric to solidify the vehicle, then removing the vehicle from the fabric, leaving the aniline color therein, and then sizing the back of the fabric.

By the new process, it is possible to print elaborate designs and to cause the dye to penetrate the full depth of the fabric, so that the entire surface has the same appearance as a fabric in which the strands are dyed prior to being woven.

It is claimed that more elaborate designs can be made by the improved process than by present methods of printing fabrics and that the cost of printing is considerably reduced.

Logwood Dyeing

Isidor Kitsee of Philadelphia (Am. Pat. 1,254,914, of Jan. 29, 1918 announces an improvement in the method of dyeing with logwood, which is capable of extension likewise to other natural colors.

The following directions are contained in the patent.

To dye goods black: To 100 parts by weight of a logwood dye solution (which preferably is purified by the addition thereto of from 1 to 10 parts of sulphurous acid) are added 3 parts of a concentrated solution of chloride of zinc and 5 parts of a concentrated solution of copper ammonium chloride. The chloride of zinc may be added to the dye solution at any time after the latter is prepared, but the copper ammonium chloride should not be added until just before it is desired to dye the goods. The process may be carried out at ordinary temperatures. After the goods are dyed, they may be developed with bichromate and nitrate of potassium, or with any other suitable developing substance.

To dye goods blue:

Dye solution, 100 parts; chloride of zinc (concentrated solution), 3 parts; copper ammonium chloride (concentrated solution), 6 parts.

The dyed goods should preferably be developed in sulphate of copper.

If, for chloride of zinc, chloride of tin be substituted, a red color may be produced. To produce a brown color, hydrochloric acid may be added.

A person versed in the art will have no difficulty in determining what compounds and what proportions are adapted to produce the particular shades desired. Broadly speaking, it may be stated that the greater the proportion of the zinc salt, the darker the shade of black, and the greater the proportion of ammoniated copper, the lighter the shade of blue.

Basic Dyes on Wool

Question: Are basic dyes of any value on wool?

Answer: There have been many instances of where Methylene Blue, Victoria Blue and Methyl Violet have been dyed even on loose wool. The dyebath must be perfectly neutral, except with Victoria Blue, and a full shade can be obtained which will resist washing and even fulling. The fastness to light is not good but they may find use for brilliant color effects where they are not subjected to severe conditions. Fuchsine would probably answer as well but Malachite Green and Auramme are not reliable as wool colors.

Stripping Off a Direct Dye

Question: What is the best way of partly stripping off a direct dye without using bleach or hydrosulphite?

Answer: Boiling hot water with a little Phosphate of Soda will generally remove over half the dye from any direct dyeing. After working for 15 minutes rinse in pure water.

Dyeing Silk Stripes on White

Question: How may worsted goods containing a silk stripe be dyed so as to leave the silk white?

Answer: This is entirely a question of selecting the proper dyes. In the main, the dyes which are suitable for such work are after-chrome colors which undergo a considerable change in shade during chroming. The Chromotrope series and related colors are the best examples. There are a few acid dyes which have this property but the series is at present incomplete. In dyeing such chrome colors as are suitable it is advisable to finish the dyeing with an extra addition of acetic acid and boil hard. Hard boiling in an acid bath will generally strip the color from silk. After chroming, if the silk is still tinted, it may dry out white, but if too much color remains a little hydrosulphite will clear the silk without affecting the wool.

The Croton Chemical Company of New York City has been incorporated with a capital of $155,000 by H. P. Ihrig, E. R. Voltmer, and F. C. Schmits.

At the Textile Exhibition

It is now generally conceded that the appearance of the present National Aniline & Chemical Company, Inc., with its several plants covering the manufacture of dyestuffs from bases through intermediates to the finished color, marked the fixation of dyestuff manufacture here in America. At the Sixth National Textile Exhibition, which is to be held at the Grand Central Palace, New York, from April 29th to May 11th, 1918, this company will occupy a large corner space on the Fourth Floor. Here will be shown some of the achievements that have marked the progress of the art during the past year. A feature of the exhibition will be a display of dyeings of some fifty "NATIONAL" colors, along side of which will be shown dyeings of the same class of colors of German manufacture. These dyeings of

American Colors *versus* German Colors

will be subjected to the same tests of scouring, fulling, and exposure to light and weather, with the purpose of illustrating more fully than has heretofore been attempted the exact status of American dyes as compared with similar dyes of foreign manufacture. We invite from the textile trade, as well as from the public, a most careful scrutiny of this exhibit. If it be examined with a knowledge of the work of our Research Department the well-informed will at once recognize that the promises of this company are gradually being fulfilled, and that "NATIONAL" colors within a reasonable time will form an adequate and comprehensive line.

National Aniline & Chemical Company

INCORPORATED

244 Madison Avenue, New York